

DERWENT-ACC- 1992-004639  
NO:

DERWENT- 199201  
WEEK:

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TITLE: Prepn. of di:fructose di:anhydride useful as sweetener - by reacting insulin and inulinase as  
obtd. from Arthrobacter sp

PATENT-ASSIGNEE: MITSUBISHI KASEI CORP[MITU]

PRIORITY-DATA: 1990JP-0059699 (March 9, 1990)

**PATENT-FAMILY:**

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 03259090 A	November 19, 1991	N/A	000	N/A

**APPLICATION-DATA:**

PUB-NO	APPL-DESCRIPTOR	APPL-NO	APPL-DATE
JP 03259090A	N/A	1990JP-0059699	March 9, 1990

INT-CL (IPC): C12P019/12, C12R001/06

ABSTRACTED-PUB-NO: JP 03259090A

**BASIC-ABSTRACT:**

Prepn. of difructose dianhydride III comprises reaction of inulin and inulinase obtd. from Arthrobacter SP. (MC 12496) registered as FERM-11288, in a solvent.

The inulinase prepd. from Arthrobacter SP. (MC 12496) is bacteria sepd. from natural soil.

USE/ADVANTAGE - Difructose dianhydride III (DFAIII) is useful for sweetening substance with low calorie.

In an example, MC 12496 is incubated in medium (150 ml) of inulin (5%), yeast extract (0.02%), sodium nitrate (0.2%), magnesium sulphate (0.05), potassium chloride (0.05), potassium diphosphate (0.05) and iron (II) chloride (0.001) at 30 deg.C for 30 hrs. Obtd. incubated mixt. is centrifuged to obtain filtered soln., which is heated for deactivation of enzyme to form condensate (10ml). The soln. is purified with activated charcoal and cerite to obtain DFA III.

CHOSEN- Dwg.0/0

**DRAWING:**

**TITLE-TERMS:** PREPARATION DI FRUCTOSE DI ANHYDRIDE USEFUL SWEET REACT INSULIN  
OBTAIN ARTHROBACTER SPECIES

**DERWENT-CLASS:** B03 D13 D16 E13

**CPI-CODES:** B12-J01; D03-H01T; D05-A02C; D05-C; E06-A03;

**CHEMICAL-  
CODES:** Chemical Indexing M2 \*01\* Fragmentation Code D012 D013 D030 D041 D160 F012 F013  
F014 F015 F022 F113 H4 H405 H423 H483 H8 K0 L8 L818 L822 L831 M280 M311 M323  
M342 M373 M393 M412 M511 M521 M530 M540 M720 M903 M904 N134 N153 N209  
N242 N262 N306 N342 N512 Q222 Q233 Ring Index 41358 44620 Specific Compounds  
22203P

Chemical Indexing M3 \*01\* Fragmentation Code D012 D013 D030 D041 D160 F012 F013  
F014 F015 F022 F113 H4 H405 H423 H483 H8 K0 L8 L818 L822 L831 M280 M311 M323  
M342 M373 M393 M412 M511 M521 M530 M540 M720 M903 M904 N134 N153 N209  
N242 N262 N306 N342 N512 Q222 Q233 Ring Index 41358 44620 Specific Compounds  
22203P

**UNLINKED-DERWENT-REGISTRY-NUMBERS:** ; 1873S

**SECONDARY-ACC-NO:**

**CPI Secondary Accession Numbers:** C1992-002217